



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/656,610

09/06/2003

David A. Frazer

906-03080601

7989

25864

7590

10/17/2006

CHARLES C.H. WU  
98 DISCOVERY  
IRVINE, CA 92618-3105

EXAMINER

DO, ANH HONG

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/656,610	<b>Applicant(s)</b> FRAZER, DAVID A.	
	<b>Examiner</b> ANH H. DO	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 10 is objected to because of the following informalities: the semicolon at the end of the claim should be replaced by a period. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Reasoner et al. (U.S. Patent No. 5,768,446).

Regarding claim 1, Reasoner discloses a method comprising:

- receiving a single pixel stream of input data (col. 2, lines 24-30: image processor 24 receives the digital representation comprising a plurality of image pixels);
- sub-sampling data from the single pixel stream at programmable intervals (col. 3, lines 58-61: camera means for sampling 256 grey levels per pixel in the stream; and col. 4, lines 66-67: the intervals in the document data inherently programmed by a host computer);
- creating a histogram with characteristics of the input image based on the sub-sampled data (col. 15, lines 31-35: generating a histogram inherently based on the sub-sampled data).

Art Unit: 2624

Regarding claim 10, since this is an apparatus claim corresponding to method claim1, the discussion of claim1 is applied hereto.

Regarding claims 2 and 11, Reasoner teaches:

- scanning the input image (col. 10, lines 34-36: IM scan);
- pre-analyzing the input image to compensate for inadequacies associated with scanning (col. 10, lines 36-48: the algorithm for pre-analyzing the input image to compensate for inadequacies associated with scanning).

Regarding claims 3 and 12, Reasoner teaches sub-sampling on a line basis (col. 10, lines 30-33: the top and bottom edge detectors 3-3 for sampling the input image data on a line basis (i.e., from the top to the bottom)).

Regarding claims 4 and 13, Reasoner teaches sub-sampling on a pixel basis (col. 11, line 16; sampling alternate pixels).

Regarding claims 5 and 14, Reasoner teaches determining whether the input image is black and white (col. 9, lines 12-15), a photo (i.e., image) (col. 13, lines 13-16), low in contrast (i.e., reducing contrast) (col. 11, lines 19-22), and light (col. 19, lines 5-10).

Regarding claims 6 and 15, Reasoner teaches determining a maximum and minimum value, a first and last value (col. 19, lines 14-23), and an average value for each characteristic of the input image (col. 9, lines 37-40).

Regarding claims 7 and 16, Reasoner teaches substituting transition pixels with stable pixels to inherently compensate for sampling effects (col. 13, lines 52-55).

Art Unit: 2624

Regarding claims 8 and 17, Reasoner teaches truncating to a minimum number of bits to reduce a depth of the histogram (col. 1, lines 29-32).

Regarding claims 9 and 18, Reasoner teaches determining characteristics of the input image facilitates subsequent image processing functions (col. 3, lines 8-13).

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 16, 2006



**ANH HONG DO  
PRIMARY EXAMINER**